ABSTRACT OF THE DISCLOSURE

Every time a packet is received from a server, a communication performance measuring equipment transmits/receives a predetermined control packet to/from a client and a branching node, respectively, thereby collecting information about communication environment. Based on the information and a predetermined delay model, a delay time in delivering the same packet from the server to the client is estimated, and, according to the delay time, transmission timing of an acknowledge packet in response to the received packet is controlled. Thus, it is possible to accurately measure communication performance between an arbitrary client and an arbitrary server, no matter where the communication performance measuring equipment is physically arranged.